# CURRENT LITERATURE

## NOTES FOR STUDENTS

**Forest geography of New Jersey.**—HARPER subdivides New Jersey into nine forest regions, most of which form approximately parallel belts traversing the state from northeast to southwest.[1] Each of these is discussed in turn and the characteristic species noted. The most abundant tree in the state is *Pinus rigida,* but the most widely distributed tree probably is *Quercus alba,* which occurs in all of the nine forest regions; *Acer rubrum* is not far behind *Quercus alba* in this respect. Evergreen species probably make up about 40 per cent of the forests of the state.—H. C. COWLES.

**Random assortment in inheritance of distinguishable homologous chromosomes.**—Miss CAROTHERS,[2] from her work on Orthoptera, has already reported the occurrence of homologous chromosomes which could be identified one from the other by a size difference. Furthermore, since the form of a given homologue is constant for the individual, she has been able to demonstrate, from a study of a number of individuals of the population, that these heteromorphic homologous chromosomes (3 pairs) have a random segregation in relation to each other and to the sex chromosome. In the present paper, she actually follows these chromosomes from parent to offspring, making a cytological examination of the parents after they have been allowed to reproduce, and later an examination of the resulting progeny. Size, shape, and point of attachment of spindle fibers all seem to be practically constant heritable characters, by which the author identifies the individual chromosomes, and shows that their recombination in the progeny is according to the laws of chance. In the author's material one can say in regard to the chromosomes which enter the gametes, just as certainly as of a pair of contrasting unit characters which segregate in the $F_2$ generation, that this one was contributed by the father and that one by the mother. This amounts to a direct demonstration of those assumptions as to the behavior of the chromosomes in inheritance which have been necessary to account for the workings of Mendel's law. It is hoped that eventually such structural variations of the chromosomes will be correlated with the resulting somatic characters of the individual.—M. C. COULTER.

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[1] HARPER, R. M., A sketch of the forest geography of New Jersey. Bull. Geog. Soc. Philadelphia **16**:107–125. *pls. 3.* 1918.

[2] CAROTHERS, E. ELEANOR, Genetical behavior of heteromorphic homologous chromosomes of *Circotettix* (Orthoptera). Jour. Morph. **35**:457–473. 1921.